

Y-12 BULLETIN

A NEWSPAPER BY AND FOR EMPLOYEES OF CARBIDE AND CARBON CHEMICALS CORPORATION IN Y-12

Volume 3, No. 28

OAK RIDGE, TENNESSEE

Tuesday, July 26, 1949



Y-12 Photos By Vince Moore

FIRST AID TEAMS IN Y-12 ALREADY ARE PRACTICING for the second annual Carbide first aid contest to be held September 17. At top is a team from the Maintenance Division that participated in the 1948 contest. From left are W. B. Tyree, Dept. 2003; C. R. Roberts, Dept. 2616; R. E. Dew, Dept. 2003; W. P. Gore, Dept. 2283; J. E. Wilson, Dept. 2003; and C. J. Beckett, Dept. 2611, captain of the team. The first aiders are looking over equipment used in the contest and receiving instruction from Beckett. The lower picture shows members of the committee of representatives from all three Carbide plants in Oak Ridge talking over plans for the contest. From left are Roy M. James, of Y-12; Lloyd N. Williams, of the Oak Ridge National Laboratory and formerly of Y-12; and James E. Campbell, of K-25.

Absenteeism In Y-12 Drops To Two Per Cent For Week Ending July 17; Five 'All Present'

The plant absenteeism record took another substantial drop for the week ending July 17 back to an even two per cent, the same as was posted two weeks previously and a decrease of .3 per cent from the week ending July 10. The decrease was registered despite the fact that only five departments reported perfect attendance figures for the week ending July 17 as against seven the preceding week.

Dr. Weltch To Lead Talks At Weekly Seminar Meeting

"Scattering of X-Rays by Nucleons" will be the topic of discussion at the regular weekly meeting of the Oak Ridge Physics Seminar at 4 o'clock Friday afternoon, July 29, in the East Lounge of the Ridge Recreation Hall. Dr. Theodore A. Weltch, of the University of Pennsylvania and the Oak Ridge National Laboratory, will lead the discussion.

Discussing the topic, Dr. Weltch says:

"It is proposed to investigate the scattering by nuclei of X-Rays in the energy range of 10 to 100 Mev. A theoretical treatment of this experiment shows that significant information can be obtained from it concerning nuclear forces and the structure of the nucleus."

ATOM IS PROMISING

The Boston Herald recently reported that a study by the Harvard Business School shows that the "atomic age" for businessmen still is far in the future, but cautions that the atom still holds revolutionary promises for peacetime use. The study declares that constant and greater alertness on the part of American industry and business is required as a result of this promise.

In the Major League of departments with more than 50 employees scheduled, the same three departments that held top positions for the week ending July 10 repeated the next week. Dept. 2077, Electrical Equipment Repair and Maintenance, maintained its fine record to stay on top and reported no absences for the period ending July 17. This department has been on top 10 times in 11 weeks.

Second place was held by Dept. (Continued On Page 4)

Judge To Be Asked To Simplify Rules For First Aid Meet; Plant Representatives And Dodge Set Session In Y-12

In a move to simplify and clarify rules and meet early this week with C. H. Dodge, engineer in charge of the second annual Carbide and Carboncharge of United States Bureau of Mines Operation Chemicals Corporation first aid contest set for Bluffs in this district. The meeting will be held in Y-12 kenship Field, Saturday, September 17, representatives with Roy M. James, of Y-12; J. E. Campbell, of K-25; and Lloyd N. Williams, of Oak Ridge National Laboratory and formerly of Y-12, representing the Company.

Dodge was chief judge of the opening inter-plant first aid contest held last year and will hold a similar position this year. The contests are held under rules set up by the bureau for such events. **Deletions Of Rules Asked**

The chief judge will be asked to delete as many field rules as possible in the 1949 Carbide contest. This will result in much less confusion both for the competing teams and also for the spectators.

At a meeting of the three Carbide plant representatives last week it was estimated that K-25 probably will be represented by 18 teams in the September event and the Oak Ridge National Laboratory expects to enter at least 10 teams. In Y-12 there now are seven men's teams and four women's teams now in training and it is hoped that the total will grow to 14 teams by the time of the competition.

Regular Practice Sessions Held

The Y-12 first aid teams are holding regular practice periods as two hours per week of training is allowed for the contest under the rules of the competition. Most of the team members in Y-12 are veterans of last year's competition but the few newcomers in the ranks are receiving the regular first aid training necessary to fit them for the contest.

The 1948 contest was won by a women's team from Y-12. Several members of this team will be available for competition again this year. The 1949 rules provide that men and women compete on equal footing in the contest and have an even chance at the \$105 prize to be awarded the top team in the event. The winning team also will get a handsome trophy. Cash prizes also will be given the winning teams in each plant.

SAFETY SCOREBOARD

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Accident

THROUGH JULY 21

Cyclotron-Produced Radioisotopes To Augment Production Of ORNL To Aid Scientists Of U. S.

Cyclotron-produced radioisotopes will be made available to research men in the United States under a program announced by the Atomic Energy Commission. With this additional supply of radioisotopes, which are produced in the accelerator type of atom-smashing machines, added to the varieties produced in the Oak Ridge reactor, researchers will have a new collection of tools for finding answers to problems in general science, medicine, industry, and agriculture.

The program will augment the present distribution of reactor-produced radioisotopes which has been in effect since August, 1946. Up to the present, 6,975 shipments of radioisotopes of nearly 60 elements representing nearly 100 of the isotopic species have been made through the Atomic Energy Commission.

Only those cyclotron-produced isotopes having half-lives of more than 30 days will be distributed initially. Included in these valuable research tools are 43-day beryllium 7, three-year sodium 22, 44-day iron 59, four-year iron 55, 250-day zink 65, 90-day arsenic 63, and 56-day iodine 125.

Under the distribution arrangements, the Carbide and Carbon Chemicals Corporation, operator of the Oak Ridge National Laboratory for the commission, will be authorized to purchase cyclotron time from various institutions operating such machines. Initial arrangements will be completed for cyclotron irradiations at the Massachusetts Institute of Technology, the University of Pittsburgh, Washington University at St. Louis, and the Crocker Radiation Laboratory at the University of California.

The commission said that although the uranium chain-reacting reactor far surpasses the cyclotron in quantity production of radioisotopes created by fission and by certain other neutron reactions, a considerable number of important isotopes cannot be produced with the reactor. The cyclotron, the commission said, is a necessary complement. (Continued On Page 2)

Vic Bradford, Ex-Tide Star Now Navy Coach And Brother Visit Chief 'Uncle Miles' Here

Among the many sports fans in Y-12, Chief Miles H. Bradford of the plant Guard Department ranks right up with the leaders in his enthusiasm—particularly for football, baseball and softball. Therefore he was an exceptionally proud host last week to two nephews—also of



Y-12 Photos By Vince Moore

CHIEF MILES BRADFORD, OF THE Y-12 GUARD DEPARTMENT, gets some high grade instruction in how to hold a football for a forward pass from his nephew, Victor Bradford, backfield coach for the United States Naval Academy team. Frank Bradford, another nephew, looks on from the left, ready to catch the toss.

the name of Bradford—who have made excellent reputations for themselves in the world of sports.

The visitors were Victor (known far and wide through the South as "Vic" Bradford, the former Alabama star of more than a decade ago) Bradford, and his younger brother, Frank Bradford. The brothers, their wives and Vic's two children dropped in last Wednesday for a visit with "Uncle Miles" and left Thursday.

The Bradford brothers and their uncle had not been together for about 17 years until the reunion last week. It seems as how Frank paid Vic a visit at his present Annapolis, Md., home and the pair of them set out to visit relatives of Mrs. Vic Bradford in Paris, Ky. Getting that far, the brothers decided to come on down to Oak Ridge.

Vic Bradford probably is the best known of the Bradford brothers. (Continued On Page 4)

Chemists Of Y-12 Awaiting ACS Picnic Set August 6

Y-12 members of the East Tennessee Section of the American Chemical Society are working up their appetites for the annual mid-summer picnic of the group set for Saturday, August 6, at Big Ridge State Park. Three Y-12ers are active in making plans for the event. J. M. Herndon is a member of the social committee and H. P. House is on the arrangements committee and Joe Williams will draw some posters for the affair, which will be held from 1 p.m. to 7 p.m.

Baseball and other games will be staged at the picnic and members of the organization, their families and guests will bring basket lunches. A group dinner will be held at 5 p.m. Plenty of soft drinks, ice cream and other refreshments will be available at the picnic.

NEW ENERGY SOURCE SEEN

The Hartford Courant reports that Dr. Louis Gordon, of Syracuse University; and one of his students, C. H. Vaneless, with Prof. H. H. Willard, of the University of Michigan; presented a paper at the annual analytical conference of the American Chemical Society on experiments with thorium. The paper describes results of laboratory tests that the scientists say may lead to a new source of atomic power.

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Iowan Stresses Need Of Atomic Secrecy

Dr. Frank H. Spedding, director of the Iowa State College Institute for Atomic Research, in accepting the first Iowa Award of the Iowa Section of the American Chemical Society, has warned that the present world situation does not guarantee that the next war is more than 25 years away and for that reason the United States should keep certain of its atomic secrets to itself.

"Know-How" Real Secret

The real secret of the atomic bomb is not something that easily could be stolen, he is quoted by the Chemical and Engineering News as saying, as it is the scientific and industrial "know-how" involved in the large scale operations that has given the United States the lead.

"I am convinced," said Dr. Spedding "that if we were certain that the next war was more than 25 years away, by far the smartest move that could be made in the interest of our national safety would be to make all information concerning atomic work completely free. On the other hand, in the present world situation we cannot be sure that the next war is 25 years away, so it is necessary for our national safety that we do retain certain atomic secrets until an international order is set up which can police the world. There is no question in my mind that military matters, the design of weapons and the design of large scale production plants should be kept secret until a workable international control scheme can be placed into effect."

AEC Program Is Praised

The Iowan praised the security program of the Atomic Energy Commission that permits information on peacetime uses of atomic energy to be released when it is not against the best interests of the nation and criticized "well-intentioned but ill-informed" groups that would oppose the AEC program.

Two Departments Planning Picnic

Dept. 2300, Chemical Research, and Dept. 2270, Technical Service Laboratory, employees are planning a picnic tentatively scheduled for Saturday, August 13, at Big Ridge State Park.

A committee including C. D. Susano, Leo Brady, H. P. House, John Reece, Claude Haws and Keith Brown is making arrangements for the event. All the usual picnic fun and food is expected to be offered the folks attending the affair.

Father: "Liz, who was that guy I saw you kissing last night?"
Liz: "What time, Pop?"



Y-12 Photos By Vince Moore

THE FORMER MISS LOUISE ROBERTS, AN EX-Y-12 EMPLOYEE who was married last Saturday to Frances Kenneth Booth, another former Y-12er, at the Chapel-On-The-Hill, was honored with a miscellaneous shower July 12 at her home, 144 Vandalia Road. Hostesses were Ruth Law and Lois Parks. In the picture of the event above, left to right standing are Christine Sparkman, Thelma Chapman, Marie Wilde, Helen Grosch, Jessie Breazeal, Marjorie Giles, Hazel Clay, Desma Hutcheson, Burnice Roberts, Lois Parker, Mrs. Booth, the honoree; Ruth Law, Myrtle Dye, Ruby Hayes and Virginia LeSieur. Seated are Helen McNew, Germaine Parks, Evelyn Tucker, Virl Johnson, Joan Thompson and Whynette Nunt.



Morris Bailis, Dept. 2015, and his family are spending their vacation entertaining Mrs. Bailis' parents, of New York City. Incidentally, Morris is sporting a brand new fiasny red Ford. . . Deepest sympathy is extended to H. H. Miller in the death of his father in Columbus, Ohio, July 19. . . V. L. Peppers was on the vacation list last week. . . R. T. Huffman is spending his vacation visiting points of interest in North Carolina. . . Get well wishes are extended E. F. Dykes and D. R. Carter, who are on the sick list. . . H. F. Jenkins is spending a restful vacation at his home in Oak Ridge. . . A. M. Kirksey is on the vacation list.

Mr. and Mrs. G. H. Finneran, of St. Paul, Minn., paid a surprise visit to their daughter, Phyllis, of Dept. 2046, over a recent week end.

Wilma and C. M. "Happy" West, Dept. 2616, visited friends and relatives at Wilma's home in Appalachia, Va. . . Mary Anderson spent a recent vacation at Myrtle Beach, S. C., with a group of friends from Kingsport, Tenn. . . Maxine Duke has returned from a vacation spent in Jellico, Tenn., visiting her mother. . . Magnolia Huddleston returned recently from a vacation spent in Chattanooga and Nashville. While in Nashville she attended the "Grand Old Opry". . . Pauline Webb vacationed with friends and relatives in Johnson City, Tenn. . . Bessie Phillips is back on the job after a restful vacation at her home in Knoxville. . .

J. A. McLain, Dept. 2005, returned recently from a vacation spent at Norfolk, Va., and Virginia Beach. . . Get well wishes are extended to R. D. Freels, who remains on the sick list. . . Reported vacationers are L. M. Thompson, A. W. Byford, A. K. Bowles and Eugene Clowers.

Martin Skinner, Dept. 2360, and his family have returned from a vacation trip to Michigan. . . Paul Dunn and J. R. Patton and their wives, accompanied by Carl Frazier and his wife, Evelyn, Dept. 2616, made a week-end trip to Gatlinburg. . . Ray Duckworth and his wife traveled to Elizabethton, Tenn., to visit Mrs. Duckworth's mother who is ill in an Elizabethton hospital. . . Boodie Garrett and her husband had as over night guests last Tuesday Mrs. Frankie Campbell, a former Y-12 employee, and her husband, of Canton, N. C. . . Frank Lambert plans to motor to Canada during his vacation where he hopes to do some big fishing in those Canadian Lakes. . . R. L. Bailey spent a recent vacation with relatives and friends in Maryville. . . Fred B. Thomas and his family traveled to Indian Rocks, Fla., during their vacation. . . Elma J. Shaw visited with her mother in Duff, Tenn.

Ollie Morris, Dept. 2008, spent her vacation visiting points of interest in Ohio. . . Thomas A. McKenzie, Dept. 2200, and his family traveled down Florida way to Daytona Beach for a

week of relaxation. "Uncle Tom," Superintendent of Plant Protection, said he was going "like Columbus" to discover places. Wonder if he ever heard of Ponce de Leon?

Artie "Jackie" Tankersley, Dept. 2142, was called to Chattanooga because of the illness of her mother. The department extends get well wishes. . . Geneva Carter spent her vacation just resting at her home in Knoxville with a side trip to Harrogate to visit with relatives. . . S. A. Copeland has a brand new granddaughter born July 16 in Rantoul, Ill. Parents of the youngster are Sgt. and Mrs. A. F. Lyon. . . J. W. Garland made a week-end trip to Erwin, Tenn., to visit with his son, Dan, and his family.

William T. McNamara, and his wife, Mildred, a former Y-12 employee Dept. 2002, wishes to thank all the Y-12 employees for the flowers and sympathy cards that were received in the death of his son, William L. McNamara, who passed away in a veterans' hospital at Oteen, N. C., June 30. . . W. C. Moyers is vacationing at his home in Knoxville. . . H. D. Duncan hopes to get in a little golf practice during his vacation. . . Charlie Kasperek is visiting with home folks in St. Louis, Mo. . . Helen Sisson is back on the job after a restful vacation at her home in Oliver Springs. . . Helen Baker is visiting with relatives in Alabama.

Dept. 2619 extends a speedy get well wish to A. C. Lee, who continues ill. . . Tension Berry is back on the job after a vacation trip to Corryton, Tenn. . . Jim Arrington is on the vacation list.

Nell and Jim Charles, Dept. 2282, motored to Nashville for a week-end visit. . . Martha and Ed McComb made a vacation trip to Chicago to visit with relatives. . . Helen Saylor and her husband returned recently from a vacation spent taking in the sights in New York City. . . Alice Jamison made a week end trip to Monroe, La., to visit with her mother, who is ill.

O. E. Gilcrease, Dept. 2060, returned recently from a vacation spent in New Orleans. . . G. J. Angele has as guest his mother, of Baltimore, Md. . . W. H. Rice and his family had as recent week-end guests Mrs. Don C. Jones and her son, Don, of Tampa, Fla. . . H. L. Martin traveled to St. Petersburg, Fla., during his vacation. . . Evelyn Brackney visited with her family in Elizabethton, Tenn. . . M. B. Bridges spent a restful vacation at his home in Knoxville.

Dept. 2107 extends deepest sympathy to James Davis in the death of his brother in Knoxville, July 19.

HUGE SMASHER REPORTED

The Los Angeles Times has reported that the California Institute of Technology may construct an atom-smasher of sufficient power to split, not only the atom's nucleus, but the protons and neutrons of which the heart of the atom is composed.



HOLT—KIRK

Miss Carolyn Kirk, former Y-12 employee, daughter of Mrs. James E. Kirk, of North Seneca Road in Oak Ridge, and the late Mr. Kirk, became the bride of Lieut. James Holt, instructor at the West Point Preparatory School in Newburgh, N. Y., at 4:30 p.m. July 16, at the Chapel-On-The-Hill, with the Rev. Frank Porter officiating.

For her wedding the bride wore a full-length white satin gown fashioned with a net yoke and fitted body, long sleeves extending in a point at the hands, and a veil held in place by a tiara. She carried a bouquet of calla lilies.

Mildred Kirk, of Morristown, sister of the bride, was maid of honor, and Mrs. C. M. Llewellyn, sister of bridegroom, was matron of honor. Bridesmaids were Mrs. Arnold Messer, and Mrs. J. T. Noe, both of Morristown, and Mrs. J. C. Seaton, of Greeneville, Tenn. Sylvia Kirk, cousin of the bride, was flower girl.

Best man was Roy Holt, of Clinton, brother of bridegroom. Ushers were Paul Clevenger and David Cockrum, both of Oak Ridge, Joe Jackson, of Clinton, and J. T. Noe, of Morristown.

Miss Kirk was given in marriage by her brother, James E. Kirk, Jr., and during the double ring ceremony Mrs. Jack Goan sang nuptial music, accompanied on the piano by Reba Gentry.

Following the ceremony a reception was held at the Ridge Recreation Hall.

After a honeymoon trip the couple will make their home at Newburgh, N. Y.

FIELDS—BRAHAM

Miss Mary Branham, Dept. 2096, and George W. Fields, Dept. 2003, were married at 10 a.m., July 16 in Rossville, Ga. Harmon O. Boyman, justice of the peace, officiated at the wedding.

The bride is the daughter of Mr. and Mrs. Ed Hall, of Oakdale, Tenn. Fields is the son of Mrs. Zenobia Fields of Wilmington, N. C., and the late Mr. Fields.

The bride wore a navy blue dress with white accessories. Her only ornament was strand of pearls.

The newlyweds are living at 303 Sheridan Circle, Oak Ridge.

Hospital List

The following Y-12 employees were patients at the Oak Ridge hospital recently: Yale E. Payne, Dept. 2133; Thomas L. Hart, Dept. 2616; Elma Reaves, Dept. 2616; William E. Green, Dept. 2091; Sherman L. Elmore, Dept. 2091.

"Friends, I have lived here all my life. In this city there are 100 taverns, and I'm proud to say that I haven't seen none of them."

Voice from the back of the hall: "Which one is that?"



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Y-12 Photos By Vince Moore

IN HONOR OF HER APPROACHING MARRIAGE ON August 14 to Charles Simmons, Miss Iwada Boshears, Y-12 employee in Dept. 2316, was honored with a miscellaneous shower on the night of July 14 at the home of Corinne Hill, 106 Reed Lane. Co-hostesses were Rella Murphy and Dennie Williams. In the group above at the affair, standing, left to right, are Lucy Townsend, Ann McWilliams, Corinne Hill, Iwada Boshears, Rella Murphy, Betty Sherman, Dennie Williams, Margaret Carter, Ethel White, Uldean Roberts, Mary Anderson and Mattye May. Seated are Jeanette Arnold, Martha Beals and Ruth Hounshell.

Cyclotron-Produced Radioisotopes Seen

(Continued from Page 1)

ment to the reactor for supplying tracer isotopes because of the wide variety of nuclear reactions it can produce.

Recommended By Council

The new program was strongly recommended by the National Research Council, which pointed out that the great number of requests make it impossible for any one cyclotron laboratory to satisfy the demand without seriously interfering with its research progress.

The distribution of materials produced under this program will be limited to institutions and organizations within the United States and its territories and possessions. Cyclotron-produced isotopes are more readily available abroad than reactor-produced isotopes because cyclotrons are in operation in many countries.

The cyclotron produces radioisotopes by bombarding material with electrically-charged sub-atomic particles, which are accelerated to extremely high energies by successive electrical impulses in a magnetic field.

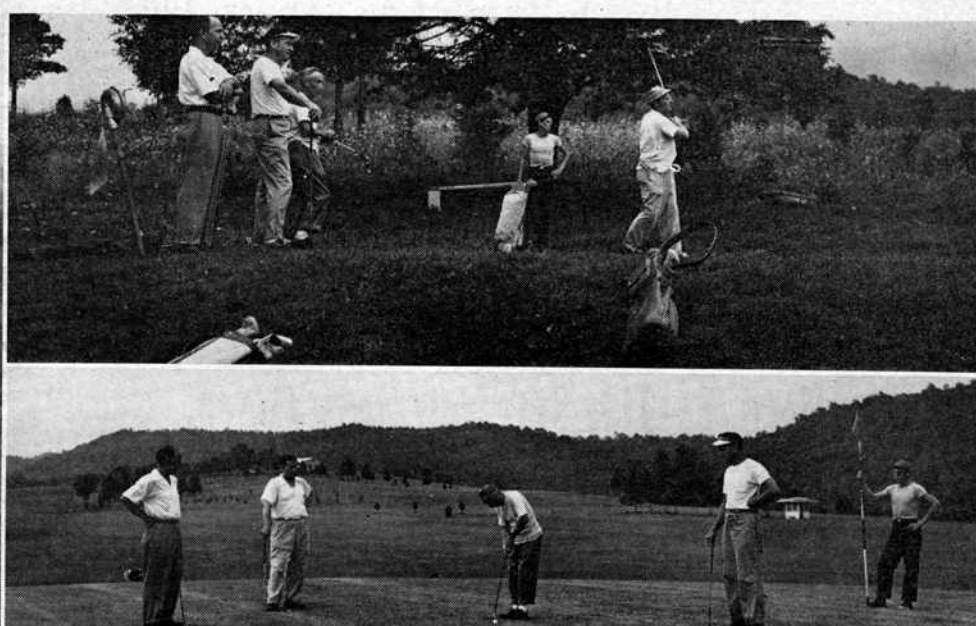
The nuclear reactor or pile produces radioisotopes by means of fission of uranium nuclei and by the bombardment of material by the resulting electrically uncharged sub-atomic particles, called neutrons.

Little Dub, He Wanted To Know

A recent news story from Texarkana, Ark., tells of the literal thoughts of youth as exemplified by little Dub Crowe, six years old. Dub was watching his mother mixing a pie and on inquiring as to what kind it would be was told, "butterscotch."

Dub watched a few more minutes and then asked;

"When are you going to put the Scotch in?"



ABOVE ARE PICTURES OF PROGRESS OF THE finals matches in the championship and second flights in the Y-12 plant golf tournament. At left the finalists figure out their scores. From left are Ed Cain, titlist in

the second flight; Leo Caldwell, whom he beat in the last round; Bill Reynolds, runner-up in the championship flight; and J. Clyde Bowles, winner of the plant championship. The top picture at right shows Champion

Bowles driving from the 16th tee. At left Reynolds, Caldwell and Cain look on. At bottom right Cain prepares to sink a putt on the 16th green with Reynolds, Bowles and Caldwell standing by.

Cards Play ORNL On Wednesday; Fred Kappelmann New Manager

Operating under new leadership, the Y-12 Cardinals face a busy week of play on the baseball diamond, weather permitting, of course. Between Wednesday, July 27, and August 1, the Birds have three Oak Ridge City League games scheduled.

The Cards are slated to meet the Oak Ridge National Laboratory at 8:15 o'clock tomorrow night, Wednesday, July 27, under the lights at Oakwood Park No. 1.

Then on Friday night, July 29, they will meet the Clinton nine, a newcomer to the league, and on Monday night, August 1, the K-25 Hubs will provide the opposition.

Poor Health Benches Burns

W. A. (Bill) Burns, who began the season as manager of the Y-12 baseball club and who did a swell job with the material at hand, has been forced to relinquish the helm because of poor health. Physicians have instructed him to avoid the strain that accompanies managing a ball club.

Replacing Burns as manager is Fred Kappelmann, a hard-hitting athlete who is a veteran performer for the Cardinals. Fred Guttery, another veteran on the squad, will be field captain of the team.

The Clinton team entered the City League last week, replacing the Veterans of Foreign Wars, which withdrew because of lack of players.

Cards Lose To Sweetwater

The Cardinals entertained the Sweetwater nine at Oakwood Park Saturday night, July 16, and were perfect hosts. They allowed the visitors to go back home with a 15 to 13 victory, although Sweetwater could get but eight hits to 16 for the losers. Eight big bobbles played hob with the chances of the Cardinals. Noe and Kappelmann hit triples and Braden a double for Y-12.

Y-12 Women's Net Team Wins Delayed Tilts

Rain curtailed activities of the Y-12 women's varsity tennis team last week, drowning out a scheduled engagement with the K-25 lassies last Tuesday night, but the Y-12 girls managed to play off a pair of matches postponed from the previous week, also on account of dampness.

In these postponed tilts the Y-12 feminine racqueteers turned in a pair of singles victories over the Independents. Mozelle Rankin trimmed Cornare, 7-5, 6-3, and Mary Freestone trounced Norton, 6-1, 6-4. Winning these two duels gave Y-12 five out of six against the Independents.

Y-12 was scheduled to meet the Oak Ridge National Laboratory girls Monday night of this week and their next scheduled appearance is August 4, when they play the Independents again.

Sise Stars As Y-12 Softies Win Another

Ed Sise continued his spectacular pitching in the Oak Ridge Recreation Softball League when the Y-12 varsity softies whitewashed the Wildcats' Den team, 12 to 0. Sise limited the opposition to one lone base hit, a single by McGrew in the second inning that was the only ball hit to the outfield in the game. Big Ed whiffed nine Denners.

Meanwhile Y-12 got 17 hits in the game, cut short to five innings by agreement. Arnold Tiller banded out three for three, one a single. Emmett Moore hit three for four, two of them being triples.

The Y-12ers are scheduled to meet the Eagles at 7:30 p.m., Friday night, July 29, at Pinewood Park. This game will be preceded at 6 p.m. by a clash between the Wildcats' Den and T. and C. while the National Guard and Moose will wind up the program at 9 p.m.

Line score follows:

Team	W	L	R	H	E
Y-12	3	1	4	3	12
Wildcat's Den	0	0	0	0	0
Batteries: Y-12 Sise and Moore. Wildcat's Den, Little, McGrew (4) and Lawess.					

Five innings by agreement.

Ridge Bowling Association Meeting Is Set August 1

All bowlers in Y-12 who are interested in participating in the Oak Ridge City League competition during the coming season are urged to attend a meeting of the City Bowling Association at 8 o'clock Monday night, August 1, at the Oak Terrace.

This will be the first meeting of the association for the season and plans for organizing the league for the coming season will be discussed.

Childhood Ills Can Be Prevented

Many childhood diseases, once considered unavoidable, now usually can be prevented by immunization, according to the Metropolitan Life Insurance Co. Protective substances also have been discovered for giving temporary protection against certain communicable diseases or for making milder and shorter, an actual attack of the disease. In one generation, medical science has lowered the death rates from measles, diphtheria and whooping cough by more than 90 per cent. Few persons now die from scarlet fever and smallpox is virtually wiped out.

SPORTS NEWS

Weatherman Disrupts Softball Loop Card

Mr. Jupiter Pluvius, the rain god, took over proceedings in the plant softball league last week and his personal appearances at the Administration Field singing "Baby, It's Wet Out Here," drove the Y-12 athletes away from the scene on several occasions. As a result, the schedule for the second half of league play became more snarled than Aunt Minnie's ball of yarn after the family cat had a field day.

At a week-end meeting of managers, the schedule was to be revised to wind up the second half of play. Copies of the reshaped card will be sent to managers by Recreation Supervisor Arnold Tiller.

As a result of the interruptions by moisture only a handful of games have been played in the second half and the Bums took over the lead by amassing two wins to no losses between dodging raindrops. The Rippers, first half of the season winners, and Bldg. 9212 are tied for second place with one win and no losses each.

Bums Take League Lead

The Bums took over the lead with a 9 to 1 victory over the Isotopes by virtue of a five-run first inning in their scrap on July 20. The Bldg. 9212 softies posted a 4 to 1 triumph over the All Americans on the same night in a well-played engagement. The All Stars were awarded a 7 to 0 forfeit over the Hit Balls when the latter group could not muster enough players to field a team.

Itching for action, the Bums trounced the Clinchmore Independents in an exhibition game on the night of July 16. The score was 8 to 1 with Ed Sise hurling three-hit ball for the winners. Clinchmore made seven errors. Believe it or not the Bums were credited with but one hit and sent in all their runs with the aid of bobbles, passed balls, wild pitches and what not.

Line scores of recent games and standings as of last Thursday follow:

Team	W	L	R	H	E
All Americans	0	1	0	0	0
Bldg. 9212	0	2	0	0	0
Batteries: All Americans, Ross and Boatman. Bldg. 9212, Barker and Wright.					
Bums	5	0	0	1	2
Isotopes	0	0	1	0	0
Batteries: Bums, Walton, Oliphant (7) and Brown. Isotopes, Love and Frazier.					
Clinchmore	0	0	1	0	0
Bums	2	0	1	0	1
Batteries: Clinchmore, B. Martin and Sneed. Bums, Sise and Brown.					

Team	W	L	Team	W	L
Bums	2	0	All Stars	1	1
Rippers	1	0	All Americans	0	2
Bldg. 9212	1	0	Hit Balls	0	2
Isotopes	1	1			

Bowles Beats Reynolds For Y-12 Golf Title, Also Is Low Scorer

J. Clyde Bowles is the new Y-12 plant golf champion, winning the honor by walloping Bill Reynolds, two up, in the championship flight finals staged Saturday, July 16, at the Oak Ridge Golf and Country Club. Bowles also turned in the low medal score for the entire tournament when he posted a fine 82 in the last 18-hole round against Reynolds.

Inter-Company Golf Meet Set August 6

The second Oak Ridge inter-company golf tournament of the season will be played over the sporty Oak Ridge Golf and Country Club course Saturday, August 6, it has been announced by the Y-12 Recreation Office. The third and final tournament of the season will be held some time in September.

Y-12 Wins First Meeting

Golfers from Y-12 already have one leg on a handsome trophy to be awarded the team with the low score for the three 1949 summer matches. The Y-12 team took top honors in matches staged Saturday, June 18, at which time they also retired from competition a cup previously played for by six Oak Ridge teams. The June 18 triumph was the third in cup competition for Y-12.

The Y-12 team in the August 6 contest will be picked from among the top golfers in the plant who are available for play on the date of the tournament. In the June 18 event Y-12 was represented by W. D. Lavers, Emil Vincens, Floyd Ludwig, Clyde Bowles, Larry Koontz, Bill Reynolds, Bob Orrison and Ed Cain.

Hope To Repeat Triumph

The Y-12 golfers were well out in front in the June 18 event and hope to repeat their victory next week. In the initial meeting of the season Y-12 scored 130 points, Atomic Energy Commission 154½, K-25 178½, Oak Ridge National Laboratory 197, Roane-Anderson 225 and J. A. Jones Co. 259.

Chess Team Of Y-12 Third After July 18 Matches

The Y-12 chess team dropped to third place in the Oak Ridge Chess Club City League after matches of July 18, in which they lost three out of five tilts to the Oak Ridge National Laboratory "B" team. State Champion Coveyou, of ORNL, defeated Don Musser of Y-12; Terry defeated K. A. Allen and Schlinger beat G. J. Nessler. Y-12 triumphs were recorded by D. G. Hill from Kinyon and C. F. Coleman by forfeit.

The ORNL "B" team and the Independents were tied for first place in the league after the July 18 matches with nine points each. The K-25 chessmen were next with eight followed by Y-12 with seven. Fairchild had 6.5 points and the ORNL "A" team was last with 5.5 points.

Bowles drew a bye in the first round of play and then beat Leaders, three and two to reach the finals. Reynolds defeated Ludwig and Koontz, both two up, to win his way into the last round.

Cain Wins Second Flight

Ed Cain was pushed right up to the last hole to defeat Leo Caldwell, one up, for the championship of the second flight. Cain advanced by beating Olson and Orrison, both two up. Caldwell disposed of Ratjen, one up, after drawing a bye, to reach the finals.

The hardest fought final round in the tournament was waged in the third flight with George Nessler trimming George Mitchel one up on the 19th hole for the title. Nessler whipped Keese, one up, and Hubbard, five and four, in his path to the finals. Mitchel beat Holznecht, two up, and Dunlap, one up, in another 19-hole match, prior to the finals.

Adkins Defeats Harris

Ken Adkins trimmed Fuzz Harris, three and one, to take the fourth flight crown.

The fifth flight championship had not been determined at press time of The Y-12 Bulletin last Friday. Joe White had reached the finals in one bracket by beating Hooker, three and two, and then Crews, one up.

Golfers Urged To Catch Up With Schedule

Inclement weather played havoc with the scheduled play in the three Y-12 golf leagues last week with only a few matches being reported to the Recreation Office, which urges teams not playing matches to make every effort to catch up with the schedule this week if possible.

The schedule for this week, beginning Monday, July 25, follows: Birdie League—Barker-Doyle vs Cain-Hooker. Ratjen-Henderson vs Foster-Brown. Harris-Matlock vs Dunlap-Crews. Olson-Nessler vs Tiller-Grimes.

Par League—Bowles-Wiest vs Peterson-Overholser. Lavers-White vs Holzkecht-Adkins. Caldwell-Stetson vs Reynolds-Bernander. Herndon-Underwood vs Keese-Mitchel.

Bogey League—Duncan-Hubbard vs Strohecker-Crouse. Tibbatts-Wanamaker vs Orrison-MacKay. Larson-Tilson vs Sherrod-Seymour. Koontz-Lister vs Ludwig-Cotton.

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Magazine 'Laboratory News' Reports Foremost Developments In Field Of Science During 1948

Foremost among the advances made in science during 1948 as reported by the American Instrument Company in the publication "Laboratory News," are the following:

1. Heavy-weight hydrogen (tritium), the only radioactive isotope of this element, and lightweight helium, each with the atomic weight of three, were produced in quantity for the first time, in the atomic pile.

2. New types of electrical semi-conductors were produced by bombarding pure germanium metal with deuterons and other particles accelerated to 10,000,000 volts.

3. Quartz crystals more than an inch long were produced synthetically.

4. Synthetic glycerine was made directly from petroleum.

5. Synthetic resins were improved so that they purify water by simultaneously removing both acid and alkali chemicals.

6. First completely synthetic varnish was prepared through several chemical steps from propylene gas, abundantly available from cracking oil.

7. New method of cementing lenses, and in some cases filters, to light-sensitive cells made possible more accurate light and exposure meters.

8. Concentration of protein in cells was revealed by using phosphotungstic acid, opaque to X-Rays as a tracer.

9. A compound leading to production in the body of the pellagra-preventing vitamin was discovered and synthesized.

10. Elusive cosmic-ray particle, called both meson and mestron, was created artificially for the first time by accelerating hearts of helium atoms to energies of 400,000-000 electron-volts in a cyclotron.

11. Tracks of heavy nuclei in cosmic radiation were captured by photographic plates carried aloft by balloons.

12. Electron tracks about two-thousandths of an inch long were captured in a special photographic

emulsion.

13. World's greatest atom smashers were planned, including two giant synchrotrons to operate at up to seven billion electron volts, and a linear accelerator capable of hurling electrons with a billion volts of energy.

14. World's first samples of metallic technetium, chemical element No. 43, were isolated.

15. A method was developed by which neutrons could be used to photograph the positions of atoms in crystal lattices.

16. Vacuum tube using cesium metal both as coating for the hot cathode and as current-carrying vapor was developed for changing alternating into direct current.

17. "Cold rubber" was synthesized at almost freezing temperatures, giving better wear.

18. New type of dry battery uses oxygen from the air instead of from chemicals within it.

19. New type of glass that can be heated to 1,800 degrees Fahrenheit and rapidly cooled without breaking consisted almost entirely of silica.

20. Exposure time for taking X-Ray pictures was cut in half by use of a new highspeed X-Ray intensifying screen.

21. Completely dry process for taking pictures and printing, called xerography, uses static electricity and dry powders instead of chemical solution.

22. Television, radio relays, facsimile, and photography were combined in a new communication system called Ultrafax that reproduces at television speed, a full page of printed matter with illustrations.

23. Water-cooling of carbon arcs was found to make possible a steady arc of high brilliancy with low carbon consumption.

Biological Science

24. Human ova or eggs were fertilized in a test tube with human spermatozoa, and fertilization, demonstrated by initiation of cell division.

vision, took place in at least four of the ova.

25. Eggs started in the body of one hen were transferred to another, fertilized, finally laid, and hatched.

26. Use of radioactive carbon as a tracer element identified the last two intermediate compounds prior to sugar formation by green simple sugar.

27. Methoxychlor, cousin to DDT, that does not poison man and animals, yet slays insects untouched by other insecticides, was developed.

Aeronautics

28. Speed of sound was surpassed many times by piloted jet planes.

29. Jet engine for aircraft, capable of producing approximately 5,000 pounds thrust, was installed in planes.

30. Molybdenum nozzles on ram-jet engines were protected from gas temperatures up to 3,000 degrees Fahrenheit by several ceramic coatings.

Medical Science

31. Announcement was made that gonorrhea could be prevented by swallowing a single pill of penicillin a few hours after exposure.

32. A new high-speed camera which requires one-twelfth the exposure of X-Rays necessary with older equipment was reported as showing promise of saving victims of stomach cancer by making mass X-Ray detection studies possible.

33. Radioactive cobalt for low-cost cancer treatment underwent tests at four institutions.

34. Radiocardiography, technique for studying heart and blood circulation by injection of radioactive chemicals whose course through the heart is traced by an ink-writing Geiger-Muller counter, was developed.

35. A common cold-causing virus, named V14A, was isolated.

36. Isolation of a blood chemical, serotonin, twice as powerful as adrenalin for fighting shock, was announced.

37. A new protein was discovered in blood which is the fifth factor in clotting and has been named agglutinin.

38. Two new vitamins, B₁₂ which may have an anti-anemia effect, and B₁₂ believed to control pernicious anemia, were discovered.

39. Discovery of an enzyme in the body, named insulinase, which rapidly destroys insulin, was linked to the cause of diabetes.

New Drugs

40. Aureomycin, cousin to streptomycin, for Rocky Mountain spotted fever, urinary tract infections, staphylococcus eye infections, Q fever and a virus-caused venereal disease called lymphogranuloma venereum.

41. Bacillomycin, from a strain of organism, bacillus subtilis, for fungus infections.

42. Decapryn, an antiallergic agent, for hay fever, urticaria, angio-neurotic edema, and bronchial asthma.

43. Dibromo procaine, from radioactive bromide, for a local anesthetic.

44. Dihydroergocornine, from ergot, for high blood pressure.

45. Khellin, extracted from a Middle Eastern fruit called ammi visnaga, for heart disease and bronchial asthma.

46. Parpanit, belladonna-like drug, for shaking palsy following an attack of the brain disease encephalitis.

47. Phenosulfazole (trade name, Darvisul) for infantile paralysis.

48. Phenurone, synthetic compound from phenobarbital, for epilepsy.

49. Phthalysulfacetamide, a sulfa drug, for cholera, dysentery, and other intestinal infections.

50. Polymyzin from a bacillus commonly found in soil and water, to check germs causing plague, undulant fever, tularemia, certain types of meningitis and of blood poisoning and wound infections, bacillary dysentery, typhoid and paratyphoid fevers and many types of urinary tract infections.

51. SKF 538-a, synthesized complex quinoline, for killing pain.

52. The sulfa drug, 6257, for cholera.

53. Trimeton, antihistaminic drug, for hay fever, bronchial asthma, allergic skin reactions, hives, and angioneurotic edema.

Vic Bradford, Ex-Tide Star Now Navy Coach, And Brother Visit Chief 'Uncle Miles' Here

(Continued From Page 1)

He now is backfield coach at the United States Naval Academy under Head Coach George Sauer, who went to Annapolis last year from the head coaching job at the University of Kansas, where Vic was his aide. Vic was an Alabama grid luminary back in the 30s and then played professional baseball for some time before entering the service in World War II.

Frank also was a football player—and a good one—but injuries prevented him from ever making the Crimson Tide varsity. However, he played professional football two seasons with the Brooklyn Dodgers after four years in service. He now limits his sports activities to some golf and softball pitching—at which he is reported to be quite some stuff up around his home town of Hartford, Conn., where he sells Cadillac automobiles for a living.

Scored TD Against Tennessee

Vic performed in the backfield for Alabama in the seasons of 1936, 1937 and 1938. Against the University of Tennessee Vols during that span, Vic recalled the 1936 game was a scoreless tie; the 1937 contest resulted in a 14 to 7 victory for Alabama with Vic scoring the first touchdown; while the 1938 game saw the Vols get revenge with a 13 to 0 triumph. News stories of that period show that Vic, although listed as a blocking back, had a lot to do with the success of the Crimson Tide. In fact, the only game Alabama lost during those three seasons, he recalled, was that 1938 loss to the Vols.

Both the Bradford boys had starred at Central High School in Memphis and in Detroit high school circles before going to Alabama—with Frank following Vic by one year. However, Frank's aforementioned injuries, first a broken foot and then other ailments, kept him from being on the same squad with his big brother.

"That was tough luck," declared Vic, "for I had looked forward to clearing the way for the youngster. He really could run—that boy."

One of the high spots in Vic's career was playing in the 1938 Rose Bowl game against California, but the Bears ruined the Tide's trip West by winning, 13 to 0.

Smokies Couldn't Use Him

After leaving Alabama, Vic was signed by the New York Giants to play baseball as he was an outstanding diamond performer as well as on the gridiron. His first assignment was to the Knoxville Smokies but the management at that time apparently couldn't see the big, six-foot slugger as an outfielder and let him get away before the season even opened in 1939. Vic then played with Clinton, Iowa, in the Three I League and Hartford in the Eastern League before going to Jacksonville, Fla., in 1942. In mid-season he was named manager of the Jacksonville Tars.

Then came the war for Vic and he was commissioned an ensign in 1943, serving through 1945. Meanwhile Frank Bradford enlisted in the Marines in 1941, advancing to the rank of sergeant. He spent four years in the service, 38 months of which were overseas "somewhere in the Pacific."

Now in his second year with the Navy gridders, Vic is cautious over expressing optimism over the Midlands' chances on the gridiron this coming season.

Always Have Tough Schedule

"You see, we schedule the very best teams in the country and have about as tough a time from one week to the next as anybody," he

explained. "For instance, this year we open against Southern California and during the year play Notre Dame, Duke and a lot of other tough ones. However, we have a good squad, and with a little luck, should win a couple this year."

How about the Army?

"The Navy always wants to beat the Army," Vic said, quietly.

That, good readers, is the height of understatement if there ever was one—and a good place to close.

Absenteeism In Y-12 Again Shows Decrease

(Continued from Page 1)

2320, Electromagnetic Research Laboratory with an absentee mark of only .5 per cent, a slight drop from its previous week's record of .64. In third place was Dept. 2360, Isotope Research and Production, with .6 per cent of its employees absent. This department also bettered its mark of 1.1 per cent posted the preceding week.

Dept. 2109, Employee Relations, was the only Minor League department to repeat its perfect attendance record for the week ending July 17 from the preceding week. Joining this department were three newcomers in the top bracket. They were Dept. 2009, Maintenance Automotive Equipment, up from seventh place; Dept. 2008, Transportation, advancing from eighth place; and Dept. 2090 Medical, stepping up from ninth place.

Second place in the Minor League was taken by Dept. 2093, Fire, one of the perfect attendance departments of the preceding week. Its absentee percentage was .4. In third place was Dept. 2743, Steam Plant, whose absentee mark was .7 per cent. This department held the same position the preceding week.

The Y-12 absentee record for the week ending July 17, by departments follows:

MAJOR LEAGUE				
More than 50 Employees Scheduled				
Dept.	Absent Percentage	7-17-49	7-10-49	Standing
2077	0.0	1	1	1
2320	0.5	2	2	2
2360	0.6	3	3	3
2015	1.2	4	4	4
2091	1.5	5	5	5
2300	1.9	6	6	6
2283	2.4	7	7	7
2616	2.9	8	8	8
2282	3.0	9	9	9
2142	3.1	10	10	10
2014	3.4	11	11	11
2003	4.2	12	12	12

Group absentee percentage was 2.1 per cent, .2 per cent lower than the preceding week.

MINOR LEAGUE				
15-49 Employees Scheduled				
Dept.	Absent Percentage	7-17-49	7-10-49	Standing
2109	0.0	1	1	1
2009	0.0	1	7	7
2008	0.0	1	8	8
2090	0.0	1	9	9
2093	0.4	2	1	1
2743	0.7	3	3	3
2739	0.9	4	2	2
2002	1.1	5	11	11
2001	1.17	6	1	1
2140	1.21	7	6	6
2096	1.53	8	1	1
2064	1.53	8	12	12
2133	1.9	9	1	1
2143	2.9	10	1	1
2005	3.37	11	4	4
2619	3.42	12	5	5
2107	4.5	13	1	1
2060	5.0	14	9	9

Group absentee percentage was 1.8 per cent, .6 per cent lower than the preceding week.

The plant average for the week ending July 17, was two per cent, .3 per cent lower than the preceding week.

Cellar stairs always should be well lighted.



Y-12 Photos By Vince Moore

ALTHOUGH HANDICAPPED BY A LACK OF MANPOWER, the Hit Balls team of the Y-12 plant softball league managed to give a good account of themselves against all opposition in the first half of the season and definitely were not pushovers for the other outfits. Front row from left are John Walford, Joe Gossage; Lloyd McGinnis and Frank Gragg. Standing are Ben Williams, Joe Gibbs, Shorty Luttrell, J. B. McKenney, Homer Park, W. J. Barker and Tom Gragg. The bat boy and mascot is Bobby Barker.

Everyone Should Guard Against Colds

The Metropolitan Life Insurance Co. has pointed out that everyone should put their knowledge to use in guarding against catching cold. The company urges everyone to stay out of crowds as much as possible when colds, influenza and pneumonia are going the rounds. Direct contact should be avoided with persons who have colds. Hands should be washed with soap and water before eating. Only clean eating and drinking utensils should be used and toilet articles should never be shared.

Theater Selected For Bean Shelling

When new ways are found to make irritating noises in moving picture theaters—maybe two young housewives in Raleigh, N.C., can be called on to provide them. A recent news story from the North Carolina city revealed that a theater manager hearing small but persistent noises from the balcony, investigated and found the two women busily shelling butterbeans while they watched the picture.

When hubby's words are sharp maybe it is from trying to get them in edgewise.